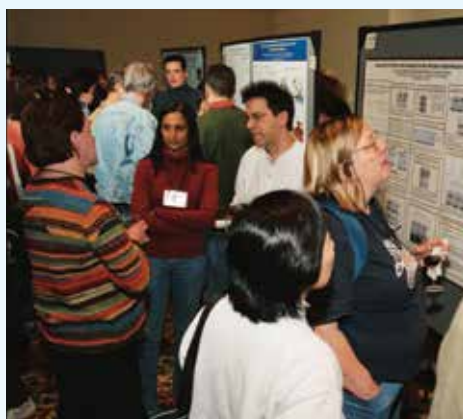




Join Keystone Symposia
for the 2016 conference on:

Axons: From Cell Biology to Pathology

January 24–27, 2016

Eldorado Hotel & Spa | Santa Fe, New Mexico | USA

Scientific Organizers:

Giampietro Schiavo, Bruce D. Carter and Rejji Kuruvilla

Joint with the conference on:

Traumatic Brain Injury: Clinical, Pathological and Translational Mechanisms

Axons extend distances ranging from a fraction of a millimeter to more than a meter in humans, lengths that require specialized mechanisms for formation, maintenance and regeneration. Given their extreme polarity and size, axons are particularly vulnerable to the risk of degeneration and dysfunction upon injury or disease. This meeting will bring together scientists from multiple disciplines interested in the common goal of addressing problems rooted in axonal cell biology, such as intracellular transport of organelles and guidance, with a view to accelerating progress in the field of axonal biology and pathology. This is a unique meeting that will cover a broad spectrum of the latest developments in axonal research, from development and maintenance, through to survival and repair, in both the central and peripheral nervous system.

Session Topics:

- Axon Cytoskeleton and Specification
- Axonal Degeneration and Regeneration
- RNA Targeting and Local Translation
- Axonal Signaling Mechanisms
- Axonal Membrane Dynamics and Axonal Transport
- Axons and Disease
- Axon-Glia-Blood Vessel Interactions
- Axon, Pathogens and Prion-Like Proteins



Submitting an abstract is a great way of participating in the conference through poster presentation and possible selection for a short talk.

Scholarship & Discounted Abstract Deadline: Sep 24, 2015

Abstract Deadline: Oct 26, 2015

Discounted Registration Deadline: Nov 23, 2015

For additional details, visit www.keystonesymposia.org/16J4.

KEYSTONE SYMPOSIA™
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SUNDAY, JANUARY 24

Arrival and Registration

MONDAY, JANUARY 25

Welcome and Keynote Address (J4)

Karl Deisseroth, Stanford University, USA
Structural and Molecular Interrogation of Intact Biological Systems

Welcome and Keynote Address (J3)

Maiken Nedergaard, University of Rochester Medical Center, USA
Impairment of Glymphatic Channels After TBI

Axon Cytoskeleton and Specification (J4)

Melissa Rolls, Pennsylvania State University, USA
Using Live Imaging of Dynamic Microtubules to Understand Axon Injury Responses

Erik Dent, University of Wisconsin-Madison, USA
Role of an F-BAR Protein in Inhibiting Axon Outgrowth

Short Talk(s) Chosen from Abstracts

What Are the Effects of TBI? Evidence from Human Observational Studies (J3)

Ann C. McKee, Boston University/VA Boston Healthcare System, USA
Pathology of Repetitive Mild TBI

Alon Friedman, Ben-Gurion University of the Negev, Israel
Blood-Brain Barrier Dysfunction as a Biomarker and Target for Treatment in Brain Injuries

Alan Pearce, University of Melbourne, Australia
Using Transcranial Magnetic Stimulation to Measure Neurophysiological Responses Following Concussion

Short Talk(s) Chosen from Abstracts

Poster Session 1

Axonal Degeneration and Regeneration (J4)

Marc Hammarlund, Yale University School of Medicine, USA
Neuronal Regulation of Axon Regeneration

Joseph W. Lewcock, Genentech, Inc., USA
DLK-Dependent Regulation of the Degenerative and Regenerative Responses to Axonal Injury

Regina Armstrong, Uniformed Services University Health Sciences, USA
Interactions of Axons and Myelin in the Progression of White Matter Damage and Repair after Single Impact Traumatic Brain Injury

Karen Duff, Columbia University, USA
Tau Proteinopathy, Neuronal Dyshomeostasis and Neurodegeneration

Short Talk Chosen from Abstracts

Workshop 1 (J3)

Short Talks Chosen from Abstracts

RNA Targeting and Local Translation (J4)

Claudia Bagni, KULeuven, Belgium
Protein Synthesis Machinery Transport to the Axons

Jeffery L. Twiss, University of South Carolina, USA
Molecular Determinants for mRNA Transport into Axons

Dianna E. Willis, Burke-Cornell Medical Research Institute, USA
Altered RNA Binding Protein Regulation and Axonal RNA Transport in Diabetic Peripheral Neuropathy

Short Talk Chosen from Abstracts

What are the Effects of TBI? Evidence from Neuroimaging Studies (J3)

Jeffrey J. Bazarian, University of Rochester Medical Center, USA
Serum and Neuroimaging Biomarkers in Traumatic Brain Injury

Mark A. Mintun, Avid Radiopharmaceuticals, Inc., USA
The Potential of 18F-AV-1451 for Imaging Tau Deposits in Neurodegenerative Disease

Martin G. Pomper, Johns Hopkins Medical School, USA
Neuroinflammation in Former NFL Players

Short Talk Chosen from Abstracts

TUESDAY, JANUARY 26

Axonal Signaling Mechanisms (J4)

Steven J. Burden, New York University Medical Center, USA
Forming and Preserving Neuromuscular Synapses

Michael Fainzilber, Weizmann Institute of Science, Israel
From Retrograde Injury Signaling to Axon Growth Control

Valeria Cavalli, Washington University, USA
Activating a Regeneration Program with Hypoxia

Bruce D. Carter, Vanderbilt University School of Medicine, USA
Mechanisms of Retrograde Apoptotic Signaling by the p75 Neurotrophin Receptor

Short Talk(s) Chosen from Abstracts

Mechanistic Insights from Animal Studies (J3)

Lee E. Goldstein, Boston University, USA
Acute and Chronic Neuronal Injury: Insights from Murine Models of Blast and Impact TBI

Regina Armstrong, Uniformed Services University Health Sciences, USA
White Matter and Cortical Involvement in Models of Single and Repetitive Mild Traumatic Brain Injury

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Dorian B. McGavern, National Institutes of Health, USA
Real-time Dynamics of Inflammation and Neurodegeneration Following Focal Brain Injury

Karen Duff, Columbia University, USA
Tau Proteinopathy, Neuronal Dyshomeostasis and Neurodegeneration

Short Talk(s) Chosen from Abstracts

Axonal Membrane Dynamics and Axonal Transport (J4)

Rosalind A. Segal, Dana Farber Cancer Institute, USA
There and Back Again: Target Derived Neurotrophins Regulate Axonal Survival

Yoshio Goshima, Yokohama City University Graduate School of Medicine, Japan

Axonal Transport Elicited by Axon Guidance Molecules

Rejji Kuruvilla, Johns Hopkins University, USA
Endocytic Trafficking of Neurotrophins in Neural Development

Casper Hoogenraad, Utrecht University, Netherlands
Mechanisms of Axon Formation: Microtubule Remodeling and Motor Activity

Short Talk Chosen from Abstracts

Mechanistic Insights from Human Studies (J3)

Dallas C. Hack, United States Army, USA
Clinical Insights from the US Military Medical Experience in Iraq and Afghanistan

T. Blaine Hoshizaki, University of Ottawa, Canada
The relationship between Impact Characteristics and Brain Tissue Strain Distributions

Susan Margulies, University of Pennsylvania, USA
Mechanisms of Pediatric TBI

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, JANUARY 27

Axons and Disease (J4)

Sung OK Yoon, Ohio State University, USA
A Novel Role for the p75 Neurotrophin Receptor in Regulating Nociception

Nancy M. Bonini, University of Pennsylvania, USA
Insights into Neural Degeneration and Injury from Drosophila

Ralph A. Nixon, New York University, Langone Medical Center, Nathan Kline Institute, USA
Autophagy in Neurological Disorders

Ceri Davies, GlaxoSmithKline, Singapore
PHARMA Novel Pharmacological Approaches to Neurodegeneration

Short Talk(s) Chosen from Abstracts

From Precision Medicine to Therapies (J3)

Ramon Diaz-Arrastia, Uniformed Services University of the Health Sciences, USA

Endophenotypes of Traumatic Brain Injury: What We Need to Know for the Next Generation of TBI Clinical Trials

Kaj Blennow, University of Gothenburg, Sweden
Fluid Biomarkers for TBI – Research and Clinical Applications

Michael Chopp, Henry Ford Hospital, USA
Novel Neurorestorative Therapies for Remodeling the CNS and Enhancing Neurological Recovery Post TBI

Rami Burstein, Harvard Medical School, USA
The Pathophysiology of Trauma-Induced Headache

Short Talk(s) Chosen from Abstracts

Axon-Glia-Blood Vessel Interactions (J4)

Mary A. Logan, Oregon Health & Science University, USA
Age-dependent Changes in Glial Responses to Axon Injury and Disease

Patrizia Casaccia, Mount Sinai School of Medicine, USA
Epigenetic Mechanisms in Glial Development and Maintenance

Chenghua Gu, Harvard Medical School, USA
Interactions between nervous and vascular systems in the CNS

Short Talk(s) Chosen from Abstracts

Workshop 2 (J3)

Short Talks Chosen from Abstracts

Axon, Pathogens and Prion-Like Proteins (J4)

Virginia M.-Y. Lee, University of Pennsylvania School of Medicine, USA

Pathological alpha-Synuclein Transmission

Giampietro Schiavo, University College London, UK
Inhibition of Specific Protein Kinases Rescues Retrograde Axonal Transport Defects in Amyotrophic Lateral Sclerosis

James Shorter, University of Pennsylvania School of Medicine, USA
Potentiated Protein Disaggregases to Counter Neurodegenerative Disease

Therapeutic Approaches to TBI (J3)

Richard M. Ransohoff, Biogen Idec, USA
Anti-Inflammatory Treatment of TBI

Elaine R. Peskind, VA Puget Sound Health Care System, USA
Neurodegeneration After TBI: Diagnosis and Therapeutics

David K. Menon, University of Cambridge, UK
What Do We Know About TBI? Where Do We Need To Go?

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J4)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J3)

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THURSDAY, JANUARY 28

Departure